



Department of
Agriculture

Soil
Conservation
Service

Reno
Nevada



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May



Foreword

How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall. This snowfall accumulates high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are viewed in conjunction with snowpack data to prepare runoff forecasts. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data and narratives describing current conditions.

Streamflow forecasts are cooperatively generated by Soil Conservation Service and National Weather Service hydrologists. Forecasts become more accurate as more data affecting runoff becomes known. For this reason, forecasts are issued that reflect three future precipitation conditions — Below Normal, Average, and Above Normal. These forecasts are termed reasonable minimum, most probable, and reasonable maximum. Actual streamflow can be expected to fall between the lower and upper forecast values eight out of ten years.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation, temperature, and other parameters are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. Because of the limited space, snow survey measurements are not published in monthly reports. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola, Suite 200, Phoenix, AZ 85012
Colorado (New Mexico)	2490 West 26th Ave., Denver, CO 80211
Idaho	304 North 8th Street, Room 345, Boise, ID 83702
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Second Floor, Reno, NV 89502
Oregon	1220 Southwest 3rd Ave., 16th Floor, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	360 U.S. Court House, Spokane, WA 99201
Wyoming	Federal Building, 100 East "B" Street, Casper, WY 82602

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 547, Portland, OR 97209.

Published by other agencies:

Water Supply Outlook Reports prepared by other agencies include: California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A 3V1; Alberta, Saskatchewan, and N.W.T. — The Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta, T3C 1A6.

Nevada Water Supply Outlook

and

Federal - State - Private Cooperative Snow Surveys

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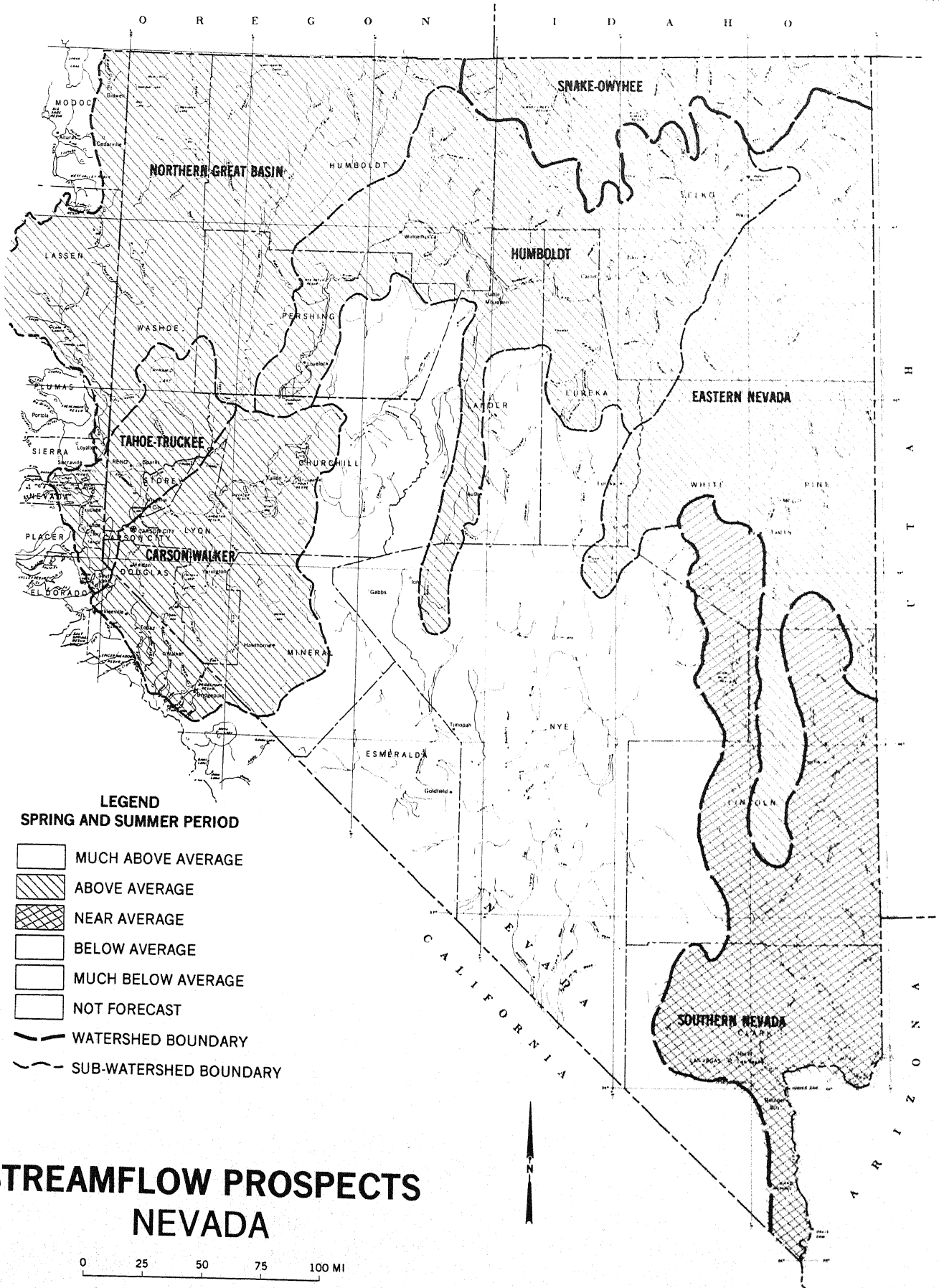
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GENERAL OUTLOOK

SUMMARY:

WATER SUPPLIES STATEWIDE WILL BE GOOD TO EXCELLENT FOR 1986. BASIN SNOWPACK ACCUMULATIONS RANGE FROM 80 TO 130 PERCENT OF AVERAGE. WATER YEAR PRECIPITATION IS ABOVE AVERAGE THROUGHOUT NEVADA. RESERVOIR STORAGE IS EXCELLENT AND SHOULD PROVIDE ADEQUATE WATER FOR ALL USES THIS SUMMER. STREAMFLOW FORECAST VALUES RANGE FROM NEAR AVERAGE TO MUCH ABOVE AVERAGE STATEWIDE.

SNOWPACK:

May 1 snowpack in western and northern Nevada basins was at or above average. Tahoe-Truckee is 100 percent of average, Humboldt 120 percent, and Carson-Walker and Northern Nevada 125 percent. Eastern, Snake-Owyhee, and Southern Nevada are 75 to 80 percent of average. Warm temperatures and below average precipitation in Tahoe-Truckee and Carson-Walker basins resulted in melting of lower elevation snow-pack. High elevation snowpack statewide remains good and should provide ample run-off for streamflow through mid-summer.

PRECIPITATION:

Precipitation totals varied widely throughout Nevada during April. Tahoe-Truckee and Carson-Walker were significantly below average with values 50 and 35 percent of average respectively. Snake-Owyhee April precipitation was 150 percent of average while Eastern, Humboldt, and Northern Great basins were approximately 200 percent of average. Water year total precipitation for all basins is 120 to 190 percent of average.

RESERVOIRS:

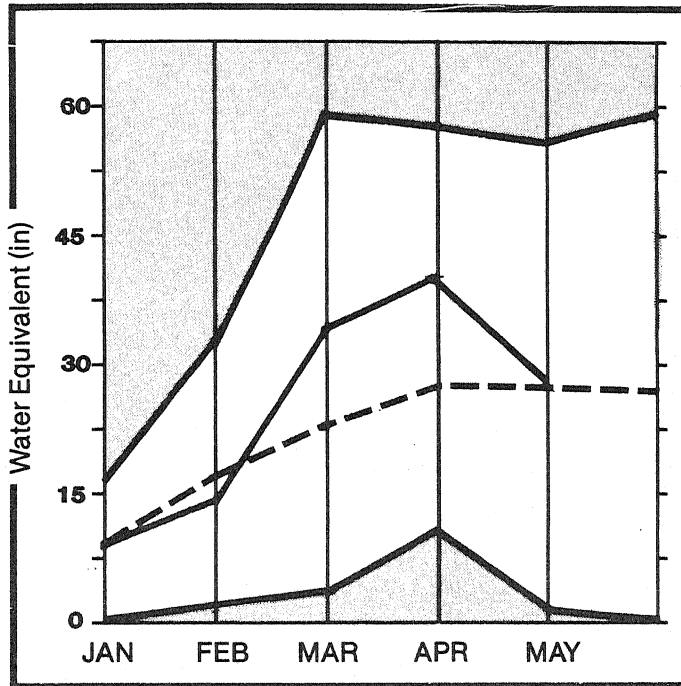
Reservoir storage is excellent statewide. Tahoe-Truckee storage facilities are 150 percent of average while Carson-Walker reservoirs are 125 percent of average. Rye Patch Reservoir is 95 percent of capacity and 150 percent of May 1 averages. Lahontan and Wildhorse reservoirs are both full and significantly above average. Total storage in the seven major reservoirs (Boca, Bridgeport, Lahontan, Topaz, Rye Patch, Wildhorse, and Lake Tahoe) is 140 percent of twenty year May 1 averages.

STREAMFLOW:

Streamflows statewide will be good to excellent. Western Nevada streams and rivers will produce April through July flows between 130 and 170 percent of average. Humboldt and Snake-Owyhee basins will flow at 120 to 140 percent of twenty year averages. Eastern Nevada streamflow forecasts are 115 to 145 percent of average. Only four forecasts are below average (Quinn River near McDermitt, East Fork Quinn River near McDermitt, McDermitt Creek near McDermitt, and Reese River near Ione) and these values are only 10 percent below average.

TAHOE & TRUCKEE BASINS

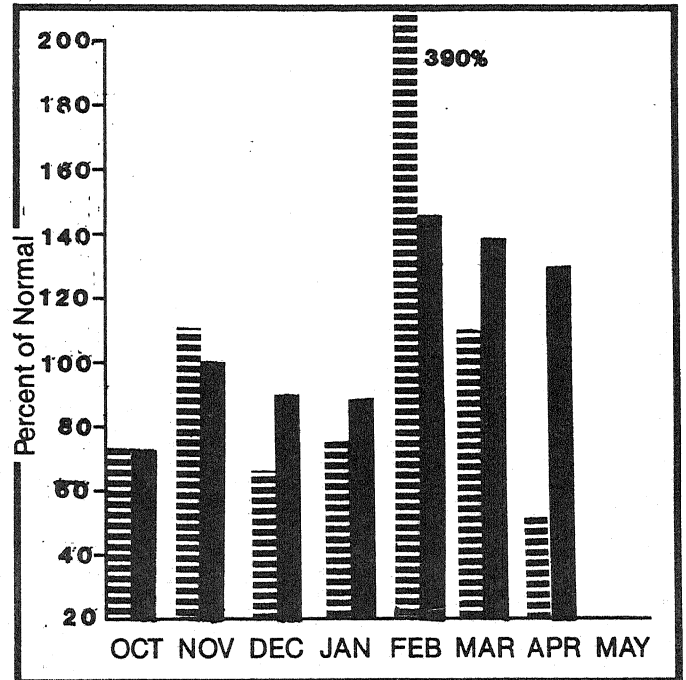
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
 Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snowpack water content is average for May 1. Lower elevation snowpack is below average while higher elevation snowpack remains above average. Reservoir storage is 150 percent of average and summer water supplies will be good despite the fact precipitation during April was only 50 percent of average. April through July streamflow forecast for Truckee River at Farad, California, remains the same as last month at 395,000 acre feet or 145 percent of average.

For more information contact your local Soil Conservation Service office.

TAHOE & TRUCKEE BASINS

STREAMFLOW FORECASTS

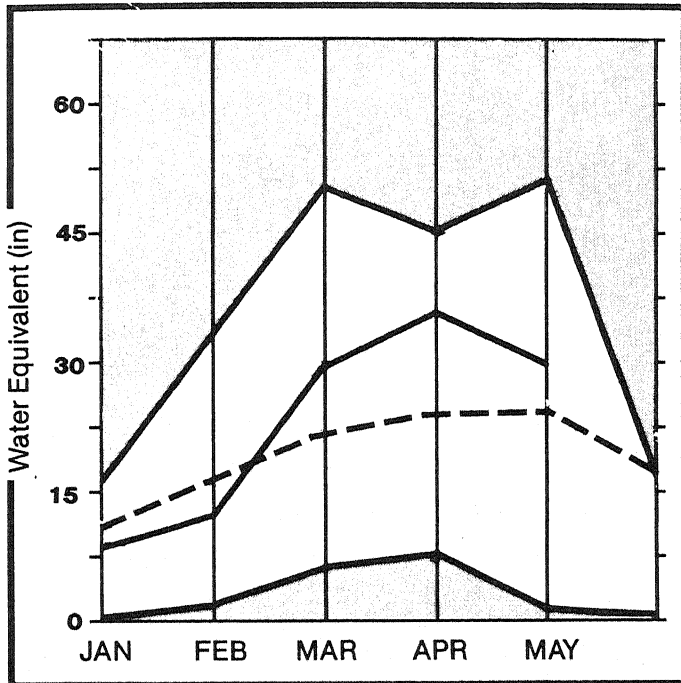
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
LAKE TAHOE RISE (assume gates closed) APR-HIG		1.3	2.2	158	144	144				
TRUCKEE RIVER at Farad, Ca	APR-JUL	269.0	395.0	146	169	125				
LITTLE TRUCKEE RIVER above Boca, Ca	APR-JUL	92.5	132.0	142	163	123				
PYRAMID LAKE RISE (LOW 12/1/85)	LOW-HIG	1.1	8.5	206	229	186				
STEAMBOAT CREEK at Steamboat, Nv	APR-JUL	5.2	8.0	153	173	135				
SAGEHEN CREEK, Ca	APR-JUL	6.5	10.0	153	169	138				
GALENA CREEK nr Steamboat, Nv	APR-JUL	4.4	6.8	154	182	136				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	LAST YEAR	AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
BOCA RESERVOIR	40.9	31.3	36.0	29.9	LAKE TAHOE RISE	7	212	98
LAKE TAHOE	744.6	653.6	581.0	443.0	TRUCKEE BASIN	10	210	100
PROSSER RESERVOIR	28.6	19.1	17.0	12.7	LITTLE TRUCKEE RIVER	3	208	94
STAMPEDE RESERVOIR	226.5	192.1	181.0	116.2	SAGE HEN CREEK	3	208	94
					GALENA CREEK	3	233	135
					STEAMBOAT DRAINAGE	2	224	141
					PYRAMID LAKE	17	211	99

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

CARSON & WALKER BASINS

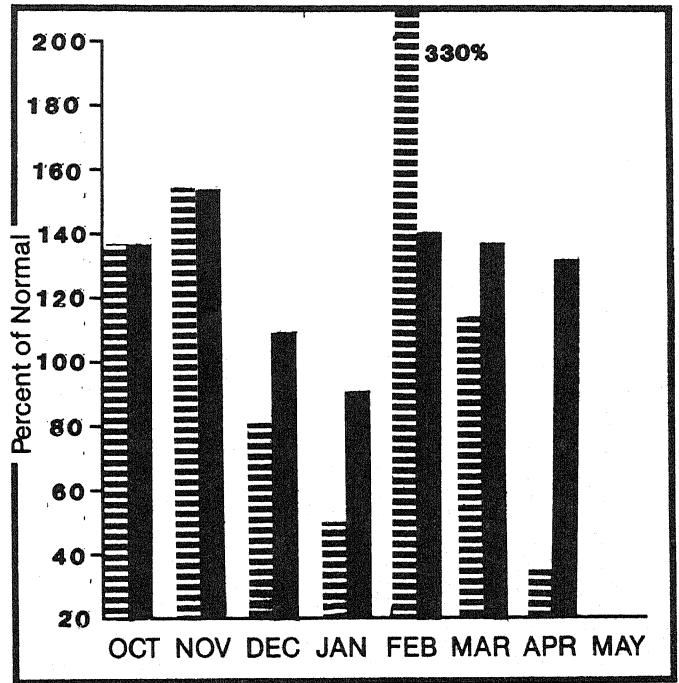
Mountain snowpack* (inches)





*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

Snowpack amounts remain above average for both basins. Overall snowpack is 125 percent of average with Carson basin 120 percent of average and Walker basin 130 percent of average. Precipitation during April was only 35 percent of average. Reservoir storage is excellent with Lahontan Reservoir 100 percent of capacity. April through July streamflow forecasts remain the same as those prepared last month. Carson River near Fort Churchill will flow 280,000 acre feet or 165 percent of average.

For more information contact your local Soil Conservation Service office.

CARSON & WALKER BASINS

STREAMFLOW FORECASTS

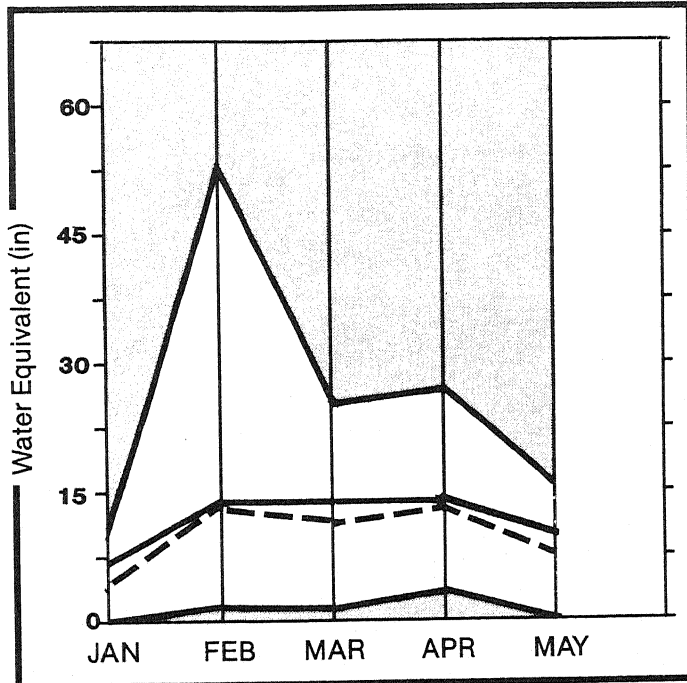
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
EF CARSON RIVER nr Gardnerville, Nv	APR-JUL	187.0	285.0	152	165	140	2690		200	JUL 8
WF CARSON RIVER at Woodfords, Ca	APR-JUL	53.0	85.0	160	177	143				
CARSON RIVER near Carson City, Nv	APR-JUL	182.0	300.0	164	183	147	3370			
CARSON RIVER near Ft. Churchill, Nv	APR-JUL	166.0	280.0	168	227	111	3104			
EAST WALKER RIVER nr Bridgeport, Ca	APR-AUG	66.0	110.0	166	200	133				
WEST WALKER RIVER near Coleville, Ca	APR-JUL	148.0	240.0	162	175	149	2873			
WALKER LAKE RISE (LOW 1/6/86)	LOW-HIG	-0.0	6.7	294	364	242				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE THIS YEAR	STORAGE LAST YEAR	STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
BRIDGEPORT RESERVOIR	42.5	31.1	36.0	30.8	E. CARSON RIVER	6	202	117
LAHONTAN RESERVOIR	295.1	290.7	274.0	228.4	W. CARSON RIVER	5	179	117
TOPAZ RESERVOIR	59.4	48.5	35.0	39.8	CARSON Rv. at Carson City	4	196	118
					CARSON Rv. at Ft. Churchi	4	196	118
					E. WALKER Rv. nr Bridgepo	3	247	132
					W. WALKER Rv. nr Colevill	4	247	132
					WALKER LAKE RISE	4	247	132

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

HUMBOLDT BASIN

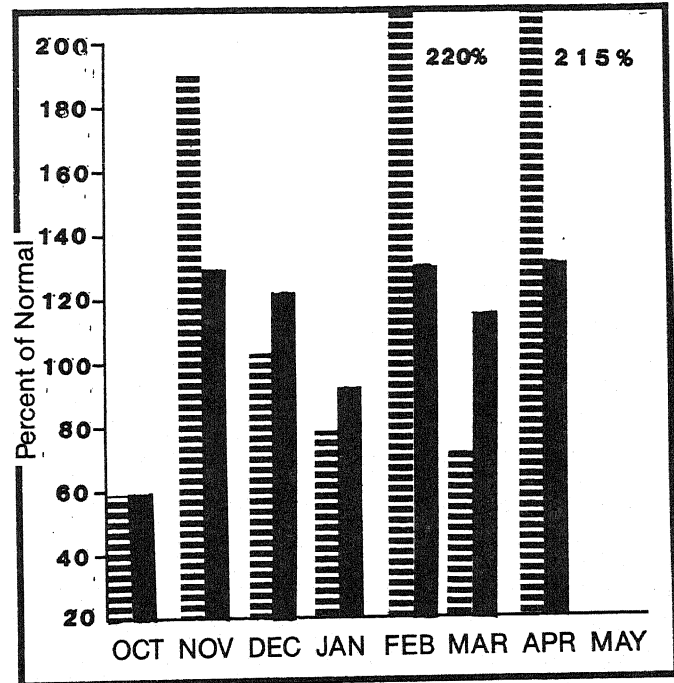
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

May 1 snowpack accumulations are 120 percent of average. Snowpack at lower elevations is below average, but upper elevation snowpack is above average. Rye Patch Reservoir storage is 150 percent of average with the reservoir currently 95 percent of capacity. April precipitation was 200 percent of average. The April through July streamflow forecast for Humboldt River at Palisade, Nevada, has been reduced to 275,000 acre feet which is 120 percent of average.

For more information contact your local Soil Conservation Service office.

HUMBOLDT BASIN

STREAMFLOW FORECASTS

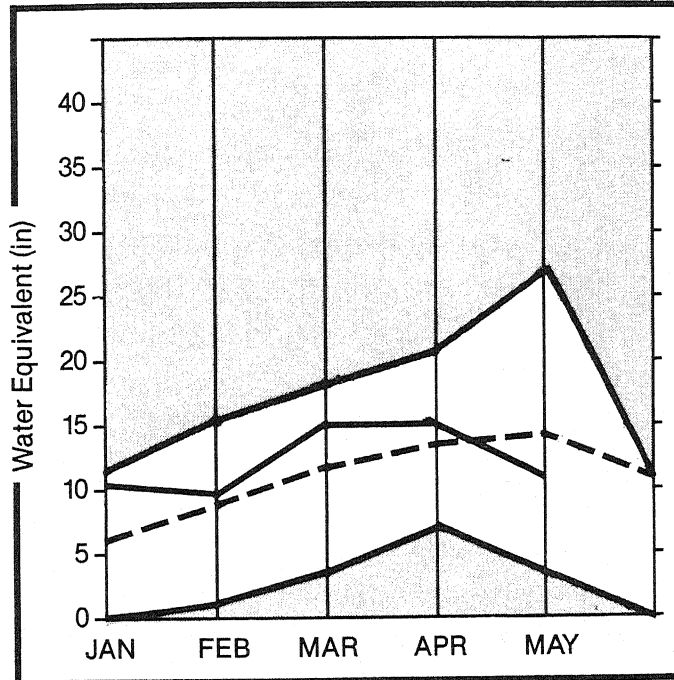
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
HUMBOLDT RIVER at Palisade	APR-JUL	230.0	275.0	119	206	33				
HUMBOLDT RIVER at Comus	APR-JUL	173.0	220.0	127	234	20				
S FORK HUMBOLDT RIVER at Dixie	APR-JUL	75.0	96.0	128	213	43				
NF HUMBOLDT RIVER at Devils Gate	APR-JUL	34.8	42.0	120	193	49				
MARY'S RIVER nr Deeth	APR-JUL	36.9	45.0	121	179	65				
MARTIN CREEK nr Paradise Nv	APR-JUL	15.8	22.0	139	177	101				
LAHOILLE CREEK nr Lamoille	APR-JUL	28.7	35.0	121	157	87				
REESE RIVER nr Ione Nv	APR-JUL	6.6	6.0	90	182	0				
L. HUMBOLDT RIVER nr Paradise Valley	APR-JUL	9.7	12.0	123	165	82				
ROCK CREEK nr Battle Mtn.	APR-JUL	16.0	22.0	137	225	50				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	USEABLE STORAGE LAST YEAR	AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
RYE PATCH RESERVOIR	194.3	182.4	174.0	122.7	LAHOILLE CREEK	1	0	132
					S. FORK HUMBOLDT	4	684	125
					MARY'S RIVER	4	108	88
					N. FORK HUMBOLDT	3	54	74
					HUMBOLDT Rv. at Palisades	7	208	106
					HUMBOLDT RIVER at Comus	7	208	106
					LITTLE HUMBOLDT RIVER	3	58	117
					MARTIN CREEK	3	58	117
					REESE RIVER	1	71	109
					POCK CREEK	2	2	6

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

SNAKE & OWYHEE BASINS

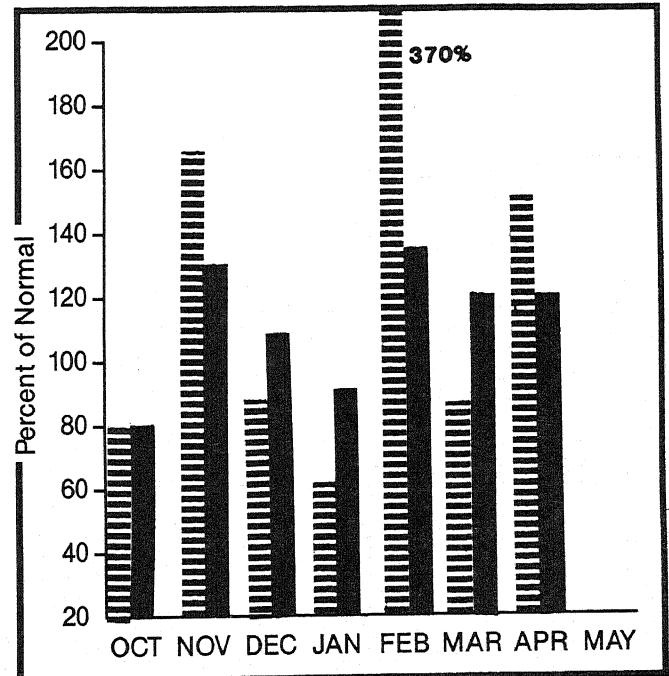
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
 Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Basin snowpack is 80 percent of average for May 1. The Snake River portion is 90 percent of average while the Owyhee River drainage in Nevada is 70 percent of average. Wildhorse Reservoir is 100 percent of capacity and 165 percent of average. Basin precipitation during April was 150 percent of average. Owyhee River near Owyhee, Nevada, will flow 90,000 acre feet, 105 percent of average.

For more information contact your local Soil Conservation Service office.

SNAKE & OWYHEE BASINS

STREAMFLOW FORECASTS

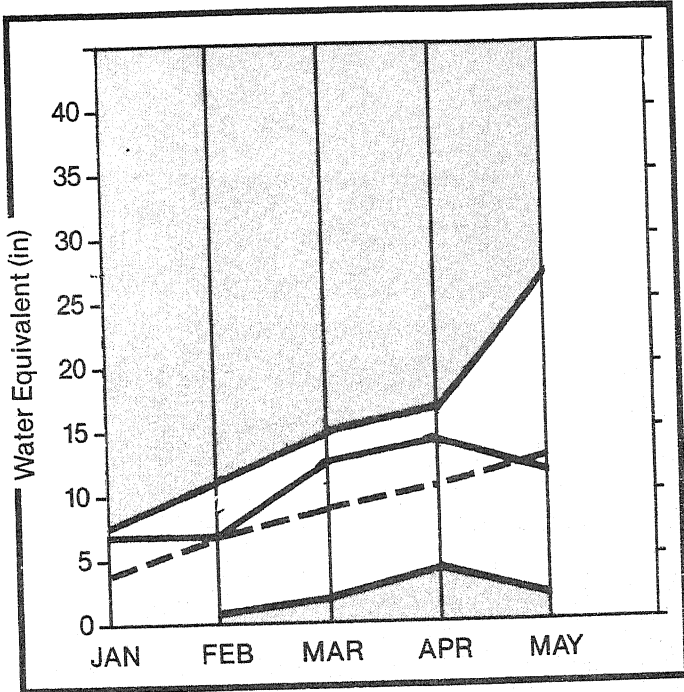
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
OWYHEE RIVER nr Gold Creek	APR-JUL	22.0	20.0	90	123	59				
OWYHEE RIVER nr Owyhee	APR-JUL	85.4	90.0	105	136	75				
S FORK OWYHEE nr White Rock, Nv	APR-JUL	83.0	95.0	114	146	83				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE I CAPACITY I	** USEABLE STORAGE ** THIS YEAR	LAST YEAR	AVE.	WATERSHED	NO. COURSES AVER.D	THIS YEAR AS % OF LAST YR. AVERAGE	
WILDHORSE RESERVOIR	71.5	71.6	71.0	43.1	OWYHEE RIVER nr Owyhee	6	77	71
					OWYHEE Rv. nr Gold Creek	2	0	4
					S. FORK OWYHEE RIVER	6	77	71
					SALMON FALLS CREEK	4	108	88

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

EASTERN NEVADA

Mountain snowpack* (inches)



*Based on selected stations

Maximum



Average



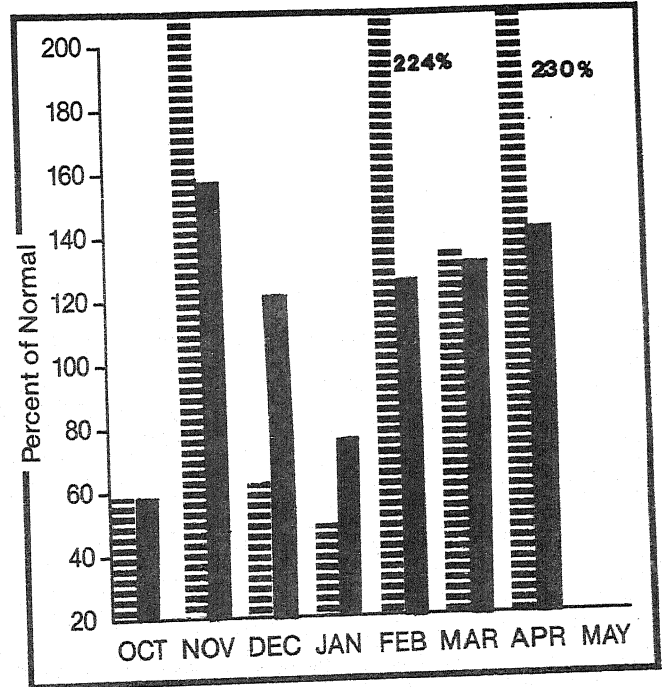
Minimum



Current



Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation



Year to date precipitation



WATER SUPPLY OUTLOOK:

Monthly precipitation was 230 percent of average and contributed to a water year precipitation total of 140 percent of average. Streamflow forecasts remain constant for the April through July forecast period. Steptoe Creek near Ely, Nevada, is forecasted to flow 2,900 acre feet or 145 percent of average. Kingston Creek near Austin, Nevada, will flow 3,800 acre feet which is 115 percent of average while Franklin River near Arthur, Nevada will flow 6,800 acre feet.

For more information contact your local Soil Conservation Service office.

EASTERN NEVADA

STREAMFLOW FORECASTS

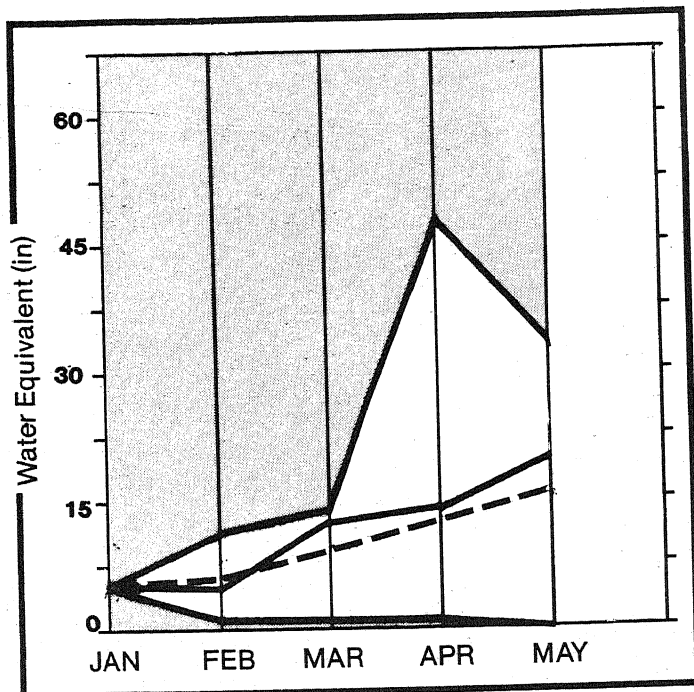
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
STEPTOE CREEK nr Ely	APR-JUL	2.0	2.9	145	250	50				
KINGSTON CREEK nr Austin, Nv	APR-JUL	3.3	3.8	115	212	30				
FRANKLIN RIVER nr Arthur	APR-JUL	5.9	6.8	115	203	34				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
					FRANKLIN RIVER	1	0	99
					KINGSTON CREEK	1	71	109
					EASTERN NEVADA	1	103	75
					STEPTOE VALLEY	1	103	75

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

NORTHERN GREAT BASIN

Mountain snowpack* (inches)



*Based on selected stations

Maximum



Average



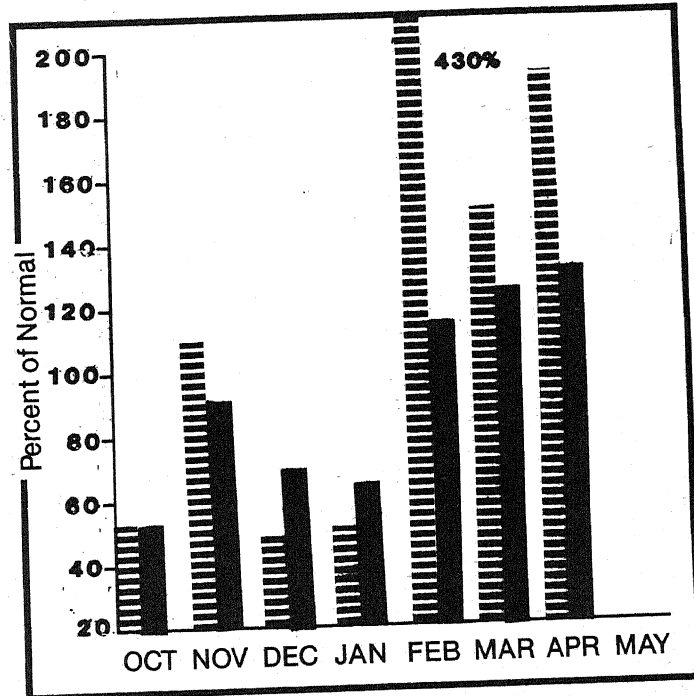
Minimum



Current



Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation



Year to date precipitation



WATER SUPPLY OUTLOOK:

Streamflow forecasts remain the same as those issued April 1. Bidwell Creek near Fort Bidwell, California, will flow 14,500 acre feet or 120 percent of average. Deep Creek near Cedarville, California, and Eagle Creek near Eagleville, California, are forecast to flow 125 percent of average. Precipitation during April was 190 percent of average and is 130 percent of average for the water year.

For more information contact your local Soil Conservation Service office.

NORTHERN GREAT BASIN

STREAMFLOW FORECASTS

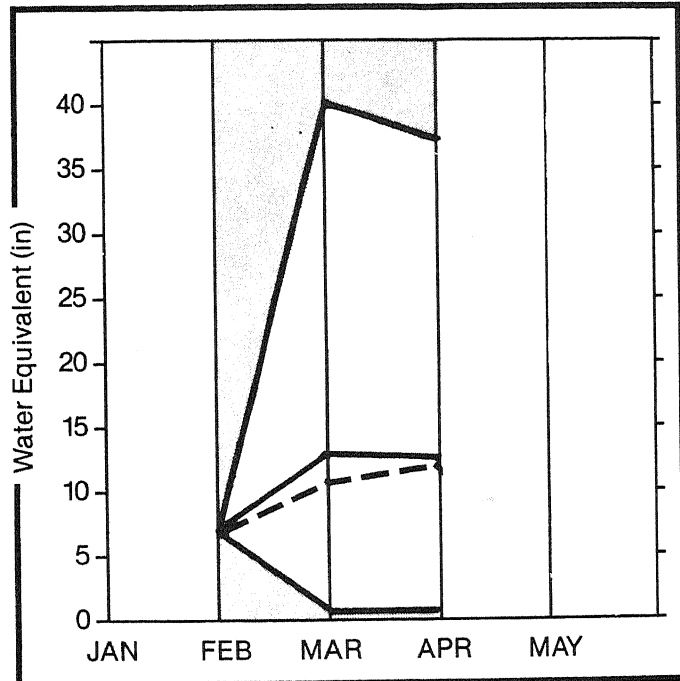
FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
BIDWELL CREEK nr Fort Bidwell	APR-JUL	12.0	14.5	120	150	92				
DEEP CREEK nr Cedarville, Ca	APR-JUL	3.6	4.5	124	167	83				
EAGLE CREEK nr Eagleville, Ca	APR-JUL	4.3	5.5	127	163	93				
MILL CREEK nr Cedarville, Ca	APR-JUL	4.1	5.0	121	146	98				
QUINN RIVER nr McDermitt, Nv	APR-JUL	16.0	14.0	87	131	44				
E. FORK QUINN RIVER nr McDermitt	APR-JUL	13.0	11.0	84	123	46				
MCDERMITT CREEK nr McDermitt	APR-JUL	12.0	10.0	83	125	42				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVE.			LAST YR.	AVERAGE
					BIDWELL	1	313	38
					MILL CREEK	1	313	38
					DEEP CREEK	1	313	38
					EAGLE CREEK	1	313	38
					QUINN RIVER	2	118	126
					E. FORK QUINN	2	118	126
					MCDERMITT CREEK	2	118	126

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

SOUTHERN NEVADA

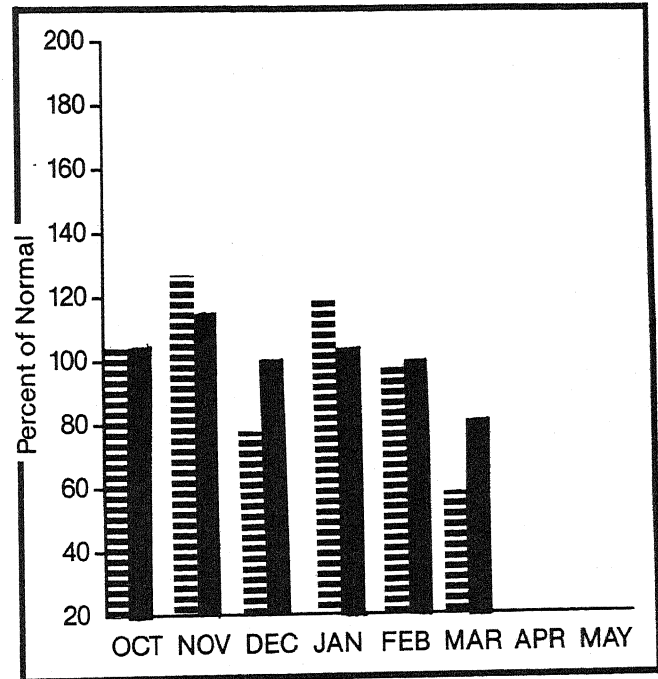
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
 Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Streamflow forecasts are good for the basin. Virgin River at Hurricane, Utah, is forecasted at 100 percent of average while the flow at Littlefield, Arizona, will be 35,000 acre feet or 95 percent of average for the May through June forecast period. Inflow into Lake Powell will be 168 percent of average for the April through July period.

For more information contact your local Soil Conservation Service office.

SOUTHERN NEVADA

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	20 YR. AVE. (1000AF)	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVE.)	REAS. MAX. (% AVE.)	REAS. MIN. (% AVE.)	PEAK FLOW (CFS)	PEAK DATE	LOW FLOW (CFS)	LOW DATE
VIRGIN RIVER near Hurricane, UT	APR-JUL	62.0	62.0	100	148	52				
LAKE POWELL inflow	APR-JUL	7462.0	12600.0	168	192	148				

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVE.	WATERSHED	NO. COURSES AVE.D	THIS YEAR AS % OF LAST YR. AVERAGE	
LAKE MOHAVE	1810.0	1400.9	1760.1	---	VIRGIN Rv. at Littlefield	4	104	79
LAKE MEAD	26159.0	23616.0	23816.0	---	VIRGIN Rv. at Hurricane,	4	104	79

*Corrected for upstream diversions or changes in reservoir storage.
Average is for 1961-80 period.

